

VI. What Is Claimed Is:

- 1 1. A method of operating access points in a CDMA/HDR
2 communications network including access terminals capable of
3 operation in an active or a dormant mode of operation,
4 comprising:
5 one or more of the access points detecting that one or more
6 of the access terminals are operating in or
7 transitioning to a dormant mode of operation;
8 one or more of the access points assigning one or more of
9 the dormant access terminals to one or more
10 corresponding common traffic channels; and
11 one or more of the access points transmitting short data
12 bursts to one or more of the dormant access terminals
13 using the assigned corresponding common traffic
14 channels.
- 1 2. The method of claim 1, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more of the dormant access terminals
4 that include the corresponding assigned common traffic
5 channels.
- 1 3. The method of claim 1, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts; and
5 one or more of the access points re-transmitting the short
6 data bursts to one or more of the non-acknowledging
7 dormant access terminals using the assigned
8 corresponding common traffic channels.

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1 4. The method of claim 1, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts; and
5 one or more of the access points re-assigning one or more
6 of the non-acknowledging dormant access terminals to
7 different corresponding common traffic channels; and
8 one or more of the access points re-transmitting the short
9 data bursts to one or more of the non-acknowledging
10 dormant access terminals using the re-assigned common
11 traffic channels.

1 5. The method of claim 4, wherein the re-assigned
2 corresponding traffic channels are determined as a function of
3 the carrier to interference ratios for the corresponding forward
4 communication links between the access points and the
5 corresponding dormant access terminals.

1 6. The method of claim 4, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more of the non-acknowledging
4 dormant access terminals that include the re-assigned
5 corresponding common traffic channels.

1 7. The method of claim 1, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times; and
5 one or more of the access points placing one or more of the
6 N times non-acknowledging dormant access terminals in
7 the active mode of operation.

- 1 8. The method of claim 1, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times;
5 one or more of the access points re-assigning one or more
6 of the N times non-acknowledging dormant access
7 terminals to different corresponding common traffic
8 channels; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the N times non-
11 acknowledging dormant access terminals using the re-
12 assigned corresponding common traffic channels.
- 1 9. The method of claim 1, further comprising:
2 one or more of the access points assigning one or more of
3 the dormant access terminals to one or more
4 corresponding common traffic channels and rate groups.
- 1 10. The method of claim 9, wherein each rate group designates a
2 corresponding rate of data transmission from the access points to
3 the corresponding dormant access terminals.
- 1 11. The method of claim 9, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more of the dormant access terminals
4 that include the corresponding assigned common traffic
5 channels and rate groups.
- 1 12. The method of claim 9, further comprising:
2 one or more of the access points transmitting short data
3 bursts to one or more of the dormant access terminals
4 using the assigned common traffic channels and rate
5 groups.

1 13. The method of claim 12, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts; and
5 one or more of the access points re-transmitting the short
6 data bursts to one or more of the non-acknowledging
7 dormant access terminals using the assigned
8 corresponding common traffic channels.

1 14. The method of claim 12, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts;
5 one or more of the access points re-assigning one or more
6 of the non-acknowledging dormant access terminals to
7 different corresponding common traffic channels and
8 rate groups; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the non-acknowledging
11 dormant access terminals using the re-assigned common
12 traffic channels and rate groups.

1 15. The method of claim 14, wherein the re-assigned
2 corresponding traffic channels and rate groups are determined as
3 a function of the carrier to interference ratios for the
4 corresponding forward communication links between the access
5 points and the corresponding dormant access terminals.

1 16. The method of claim 14, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more of the non-acknowledging
4 dormant access terminals that include the re-assigned
5 corresponding common traffic channels and rate groups.

1 17. The method of claim 12, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times;
5 one or more of the access points placing one or more of the
6 N times non-acknowledging dormant access terminals in
7 the active mode of operation.

1 18. The method of claim 12, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times;
5 one or more of the access points re-assigning one or more
6 of the N times non-acknowledging dormant access
7 terminals to different corresponding common traffic
8 channels and rate groups; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the N times non-
11 acknowledging dormant access terminals using the re-
12 assigned corresponding common traffic channels and
13 rate groups.

1 19. The method of claim 1, further comprising:
2 one or more of the access points assigning the dormant
3 access terminals to one or more corresponding common
4 traffic channels and time slots.

1 20. The method of claim 19, wherein each time slot designates a
2 time period during which data will be transmitted from the access
3 points to the corresponding dormant access terminals.

- 1 21. The method of claim 19, further comprising:
2 one or more of the access points transmitting control
3 signals to the dormant access terminals that include
4 the corresponding assigned common traffic channels and
5 time slots.
- 1 22. The method of claim 19, further comprising:
2 one or more of the access points transmitting short data
3 bursts to the dormant access terminals using the
4 assigned common traffic channels and time slots.
- 1 23. The method of claim 22, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts;
5 one or more of the access points re-transmitting the short
6 data bursts using the assigned corresponding common
7 traffic channels and time slots.
- 1 24. The method of claim 22, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts;
5 one or more of the access points re-assigning one or more
6 of the non-acknowledging dormant access terminals to
7 different corresponding common traffic channels and
8 rate groups; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the non-acknowledging
11 dormant access terminals using the re-assigned common
12 traffic channels and rate groups.

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1 25. The method of claim 24, wherein the re-assigned
2 corresponding traffic channels and rate groups are determined as
3 a function of the carrier to interference ratios for the
4 corresponding forward communication links between the access
5 points and the corresponding dormant access terminals.

1 26. The method of claim 24, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more of the non-acknowledging
4 dormant access terminals that include the re-assigned
5 corresponding common traffic channels and rate groups.

1 27. The method of claim 22, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times;
5 one or more of the access points placing one or more of the
6 N times non-acknowledging dormant access terminals in
7 the active mode of operation.

1 28. The method of claim 22, further comprising:
2 one or more of the access points detecting that one or more
3 of the dormant access terminals did not acknowledge
4 receipt of the short data bursts N times;
5 one or more of the access points re-assigning one or more
6 of the N times non-acknowledging dormant access
7 terminals to different corresponding common traffic
8 channels and rate groups; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the N times non-
11 acknowledging dormant access terminals using the re-
12 assigned corresponding common traffic channels and
13 rate groups.

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1 29. The method of claim 1, further comprising:
2 one or more of the access points assigning the dormant
3 access terminals to corresponding common traffic
4 channels, rate groups and time slots.

1 30. The method of claim 29, wherein each rate group designates
2 a rate at which data will be transmitted from the access points
3 to the corresponding dormant access terminals; and wherein each
4 time slot designates a time period during which the data will be
5 transmitted from the access points to the corresponding dormant
6 access terminals.

1 31. The method of claim 29, further comprising:
2 one or more of the access points transmitting control
3 signals to the dormant access terminals that include
4 the corresponding assigned common traffic channels,
5 rate groups, and time slots.

1 32. The method of claim 29, further comprising:
2 one or more of the access points transmitting short data
3 bursts to the dormant access terminals using the
4 assigned common traffic channels, rate groups, and
5 time slots.

1 33. The method of claim 32, further comprising:
2 one or more of the access points detecting that one or more
3 dormant access terminals did not acknowledge receipt
4 of the short data bursts; and
5 one or more of the access points re-transmitting the short
6 data bursts using the assigned corresponding common
7 traffic channels, rate groups and time slots.

1 34. The method of claim 32, further comprising:
2 one or more of the access points detecting that one or more
3 dormant access terminals did not acknowledge receipt
4 of the short data bursts;
5 one or more of the access points re-assigning one or more
6 of the non-acknowledging dormant access terminals to
7 different corresponding common traffic channels, rate
8 groups and time slots; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the non-acknowledging
11 dormant access terminals using the re-assigned common
12 traffic channels, rate groups and time slots.

1 35. The method of claim 34, wherein the re-assigned
2 corresponding traffic channels, rate groups and time slots are
3 determined as a function of the carrier to interference ratios
4 for the corresponding forward communication links between the
5 access points and the corresponding dormant access terminals.

1 36. The method of claim 34, further comprising:
2 one or more of the access points transmitting control
3 signals to one or more non-acknowledging dormant
4 access terminals that include the re-assigned
5 corresponding common traffic channels, rate groups and
6 time slots.

1 37. The method of claim 32, further comprising:
2 one or more of the access points detecting that one or more
3 dormant access terminals did not acknowledge receipt
4 of the short data bursts N times; and
5 one or more of the access points placing one or more of the
6 N times non-acknowledging dormant access terminals in
7 the active mode of operation.

1 38. The method of claim 32, further comprising:
2 one or more of the access points detecting that one or more
3 dormant access terminals s did not acknowledge receipt
4 of the short data bursts less than N times;
5 one or more of the access points re-assigning one or more
6 of the less than N times non-acknowledging dormant
7 access terminals to different corresponding common
8 traffic channels, rate groups and time slots; and
9 one or more of the access points re-transmitting the short
10 data bursts to one or more of the less than N times
11 non-acknowledging dormant access terminals using the
12 re-assigned corresponding common traffic channels,
13 rate groups and time slots.

1 39. A method of operating access terminals capable of
2 operation in an active mode of operation or a dormant mode of
3 operation in a CDMA/HDR communications network including one or
4 more access points, comprising:
5 operating one or more of the access terminals in the
6 dormant mode of operation; and
7 one or more of the dormant access terminals receiving short
8 data bursts within common traffic channels assigned to
9 the dormant access terminals.

1 40. The method of claim 39, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the assigned common
4 traffic channels.

1 41. The method of claim 39, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using the
6 assigned common traffic channels.

1 42. The method of claim 39, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using re-
6 assigned common traffic channels.

1 43. The method of claim 42, wherein the re-assigned traffic
2 channels are determined as a function of the carrier to
3 interference ratios for the forward communication links between
4 the dormant access terminals and the access points.

1 44. The method of claim 42, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the re-assigned
4 corresponding common traffic channels.

1 45. The method of claim 39, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times; and
5 one or more of the N times non acknowledging dormant access
6 terminals changing to the active mode of operation.

1 46. The method of claim 39, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times; and
5 one or more of the N times non acknowledging dormant access
6 terminals re-receiving the short data bursts using re-
7 assigned common traffic channels.

- 1 47. The method of claim 39, further comprising:
2 one or more of the dormant access terminals being assigned
3 to common traffic channels and rate groups.
- 1 48. The method of claim 47, wherein each rate group designates
2 a rate of data reception by one or more of the dormant access
3 terminals.
- 1 49. The method of claim 47, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the assigned common
4 traffic channels and rate groups.
- 1 50. The method of claim 47, further comprising:
2 one or more of the dormant access terminals receiving short
3 data bursts using the assigned common traffic channels
4 and rate groups.
- 1 51. The method of claim 50, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using the
6 assigned common traffic channels.
- 1 52. The method of claim 50, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using re-
6 assigned common traffic channels and rate groups.

1 53. The method of claim 52, wherein the re-assigned traffic
2 channels and rate groups are determined as a function of the
3 carrier to interference ratios for the forward communication
4 links between the dormant access terminals and the access points.

1 54. The method of claim 52, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the re-assigned common
4 traffic channels and rate groups.

1 55. The method of claim 50, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times;
5 one or more of the N times non acknowledging dormant access
6 terminals changing to the active mode of operation.

1 56. The method of claim 50, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times; and
5 one or more of the N times non acknowledging dormant access
6 terminals re-receiving the short data bursts using re-
7 assigned common traffic channels and rate groups.

1 57. The method of claim 39, further comprising:
2 one or more of the dormant access terminals assigned to one
3 or more common traffic channels and time slots.

1 58. The method of claim 57, wherein each time slot designates a
2 time period during which data will be received by one or more of
3 the dormant access terminals.

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1 59. The method of claim 57, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the assigned common
4 traffic channels and time slots.

1 60. The method of claim 57, further comprising:
2 one or more of the dormant access terminals receiving short
3 data bursts using the assigned common traffic channels
4 and time slots.

1 61. The method of claim 60, further comprising:
2 one or more of the access terminals not acknowledging
3 receipt of the short data bursts;
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using the
6 assigned common traffic channels and time slots.

1 62. The method of claim 60, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using re-
6 assigned common traffic channels and rate groups.

1 63. The method of claim 62, wherein the re-assigned traffic
2 channels and rate groups are determined as a function of the
3 carrier to interference ratios for the forward communication
4 links between the dormant access terminals and the access points.

1 64. The method of claim 62, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the re-assigned common
4 traffic channels and rate groups.

1 65. The method of claim 60, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times;
5 one or more of the N times non acknowledging dormant access
6 terminals changing to the active mode of operation.

1 66. The method of claim 60, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times;
5 one or more of the N times non acknowledging dormant access
6 terminals re-receiving the short data bursts using re-
7 assigned common traffic channels and rate groups.

1 67. The method of claim 39, further comprising:
2 one or more of the dormant access terminals assigned to
3 common traffic channels, rate groups and time slots.

1 68. The method of claim 67, wherein each rate group designates
2 a rate at which data will be received by one or more of the
3 dormant access terminals; and wherein each time slot designates a
4 time period during which the data will be received by one or more
5 of the dormant access terminals.

1 69. The method of claim 67, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the assigned common
4 traffic channels, rate groups, and time slots.

1 70. The method of claim 67, further comprising:
2 one or more of the dormant access terminals receiving short
3 data bursts using the assigned common traffic
4 channels, rate groups, and time slots.

1 71. The method of claim 70, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging dormant access
5 terminals re-receiving the short data bursts using the
6 assigned corresponding common traffic channels, rate
7 groups and time slots.

1 72. The method of claim 70, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts; and
4 one or more of the non acknowledging access terminals re-
5 receiving the short data bursts using re-assigned
6 common traffic channels, rate groups and time slots.

1 73. The method of claim 72, wherein the re-assigned traffic
2 channels, rate groups and time slots are determined as a function
3 of the carrier to interference ratios for the forward
4 communication links between the dormant access terminals and the
5 access points.

1 74. The method of claim 72, further comprising:
2 one or more of the dormant access terminals receiving
3 control signals that include the re-assigned common
4 traffic channels, rate groups and time slots.

1 75. The method of claim 70, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts N
4 times; and
5 one or more of the N times non acknowledging dormant access
6 terminals changing to the active mode of operation.

1 76. The method of claim 70, further comprising:
2 one or more of the dormant access terminals not
3 acknowledging receipt of the short data bursts less
4 than N times; and
5 one or more of the N times non acknowledging dormant access
6 terminals re-receiving the short data bursts using re-
7 assigned common traffic channels, rate groups and time
8 slots.

1 77. A communications network, comprising:
2 one or more access terminals adapted to operate in an
3 active or a dormant mode of operation; and
4 one or more access points operably coupled to the access
5 terminals;
6 wherein, if one or more access terminals are operating in
7 or transitioning to a dormant mode of operation, one
8 or more access points are adapted to assign the access
9 terminals to one or more corresponding common traffic
10 channels; and
11 wherein one or more access points are adapted to transmit
12 short data bursts to the dormant access terminals
13 using the assigned corresponding common traffic
14 channels.

1 78. The network of claim 77, wherein one or more access points
2 are adapted to transmit control signals to the dormant access
3 terminals that include the corresponding assigned common traffic
4 channels.

1 79. The network of claim 77, wherein, if one or more access
2 terminals do not acknowledge receipt of the short data bursts,
3 then one or more access points are adapted to re-transmit the
4 short data bursts to one or more non-acknowledging access
5 terminals using the assigned corresponding common traffic
6 channels.

1 80. The network of claim 77, wherein if one or more access
2 terminals do not acknowledge receipt of the short data bursts,
3 then one or more access points are adapted to re-assign one or
4 more non-acknowledging access terminals to different
5 corresponding common traffic channels; and
6 wherein one or more access points are adapted to re-
7 transmit the short data bursts to one or more non-acknowledging
8 access terminals using the re-assigned common traffic channels.